

in Primate People
Introduction

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A new species of Titi monkey was discovered and recorded in western Bolivia in 2004 (Madidi Titi), joining more than four hundred other recorded primate species. What do most of us know about these many other primates—about the proboscis monkey, Hainan gibbon, pygmy tarsier, or slow loris?

Earth was once rich with primates, but each species—except one—is now endangered because of just one primate: *Homo sapiens*. Meat industries threaten both South American and African primates. Roughly one hundred primate species live in Brazil, a nation where rain forests are leveled to pasture cattle in order to export meat to wealthy consumers. Africa's bushmeat trade (trade in non-human primate flesh) has been augmented by logging roads that wind deep into once isolated habitat. West Africa's bonobos, perhaps our closest relatives, have been devastated by the bushmeat trade: "In one human generation, 90 percent of the Bonobos have disappeared" (Brown 2008, 102). Miss Waldron's red colobus monkeys (also of West Africa) have been driven to probable extinction by the human appetite for their flesh.

Who were these primates, and what forces destroyed their existence? How many people outside of West Africa knew of Miss Waldron's red colobus monkeys? Would we care more about these individuals if we knew something of their lives and their suffering? Will we change what we purchase if we learn that our consumer choices harm and endanger other primates? Once informed, might we support those who work on behalf of endangered primates, or lobby for change

ourselves? If we do, can we save Earth's many and wondrous nonhuman primates from ongoing, extreme suffering and the finality of extinction? My hope is that the answer is, "Yes."

Delacour's langurs cling to cliffs and sleep in caves on the borders of Vietnam, Laos, and China. Adults are largely black with a white band around their hips (the reason they are sometimes called "white shorts" monkeys) while their infants are distinctively orange. Delacour's langurs are small with bushy tails that reach nearly three feet—much longer than their bodies. These primates eat mostly leaves but may also dine on fruit, flowers, and seeds. They live in communities of eight or nine with only one adult male, serving as protector, in each group.

Unfortunately, agricultural development and quarrying have devastated Delacour's langur habitat; deforestation now separates diminished populations. Estimates indicate that there are only 317 of these monkeys left on the planet (Nguyen 2009, 4–5). Nonetheless, human predators continue to shoot these langurs from their sandstone-cliff homes to use their body parts for medicines.

Apes, in contrast to monkeys, have rotary shoulder blades, no tails, and proportionally larger brains. How much do most people know about gibbons, the smallest and most diverse species of ape? Gibbons are covered in thick, soft, woolly hair (Crair 2008, 6). Dozens of species of gibbons live high in the forest canopies of Southeast Asia ("Highland Farm" 2009, 6). They are the only apes who reside in the tops of trees. Gibbons swing on ball-and-socket wrists that rotate as much as 180 degrees. Swinging to and fro on their long, graceful arms, aided by unusually long fingers and nonopposable thumbs, they race across the forest canopy, reaching an astonishing thirty-five miles per hour.

When earthbound, gibbons walk on two legs and have extremely sophisticated vocalizations—they sing beautifully. Gibbons are territorial and live in monogamous couple relationships (Crair 2008, 7). Their haunting duets reinforce monogamous bonds and establish individual territories ("Wildlife Friends" 2009, 9).

Gibbons are at greater risk of extinction than any other ape (Crair 2008, 7). Although all gibbons are endangered, the Hainan gibbon of China is the most threatened: it is estimated that just twenty individuals remain ("Highland Farm" 2009, 6). The eastern black gibbon of Vietnam has been reduced to only a few dozen individuals. The Javan gibbon is also very rare, as is the western hoolock

gibbon, whose population dropped from one hundred thousand to just five thousand in a handful of decades (Crair 2008, 6). Yet humans continue to shoot gibbons to sell their flesh and in the hope of capturing their babies, whom they sell into the pet and tourist industries ("Highland Farm" 2009, 6).

The proboscis monkey is a pot-bellied, red-faced primate with a bulbous, hanging nose who lives in rain forests near rivers and mangroves on the island of Borneo. Proboscis monkeys eat mostly leaves and some seeds; their leaf-eating ways contribute to this primate's odd, pot-bellied appearance. Plant cell walls are largely cellulose, and therefore indigestible for most mammals. Only three groups of mammals can digest cellulose: kangaroos, ruminants (like cows, goats, deer, elk, and sheep), and colobines (including the proboscis monkey, Asian langurs, and African colobus monkeys). Proboscis monkeys have evolved "huge, complex stomach pouches" that contain "colonies of bacteria" to ferment cellulose into fatty acids that can be absorbed into the bloodstream (Groves 2008, 10). They consume great quantities of leaves, all of which must be broken down by bacteria, which causes these red-faced primates to be "grotesquely pot-bellied for most of the day" (Groves 2008, 10). Proboscis monkeys are endangered because we buy palm oil and tropical hardwoods. Have you noticed how many common products contain palm oil?

Tarsiers can rotate their heads 180 degrees ("Asian Animals"). They are no larger than mice, weighing only four to five ounces. Nonetheless, they can leap as much as ten feet, landing on froglike toes at the tips of boney fingers ("Pygmy Tarsiers" 2009, 8). Tarsiers are named after the sturdy tarsal (ankle) bones that allow these diminutive creatures to jump many times their height. These little wide-eyed hoppers are nocturnal predators, leaping through the twilight in feverish pursuit of cockroaches, crickets, and small reptiles.

"The tarsiers fall somewhere between the lemurs and monkeys on the evolutionary scale" (Ramos). There are several species, all of them found only on Southeast Asian islands. Pygmy tarsiers are now so rare that not a single individual was sighted between 1921 and 2008.

The Javan langur, native to the rain forests and mangrove swamps of Indonesia, lives in small groups, each protected by one adult male. They are blond and black, their faces surrounded by a great mane of beautiful hair. In 2004 twenty-five hundred Javan langurs were poached from the wilds of Indonesia for the pet

trade, food, and medicines. Additionally, their habitat is degraded and rapidly disappearing because of human sprawl (Nursahid 2008, 18).

Ruffed lemurs are stark black and white with bright yellow eyes and a ruff of long white fur around their ears and neck. They live in trees and move about on all fours, leaping through the upper canopy of Madagascar's rain forests in search of fruits and filling the air with raucous calls. They are territorial and live in small groups of generally less than half a dozen individuals. Unlike most primates, ruffed lemurs give birth to groups of two or three offspring, but similar to other species, their newborns are helpless, requiring parental protection and tender nurture. Because they cannot carry all of their babies at once, ruffed lemurs are the only primates (other than human beings) who build nests where they can leave their infants while they seek food. These individuals are endangered by both logging and hunting.

Some one thousand lorises are trafficked from Sumatra to Jakarta annually in the illegal Indonesian pet trade ("Vet Describes" 2008, 8). Evidence suggests that six to seven thousand of these petite primates are poached from the wilds of Thailand each year ("Slow Lorises" 2007, 15).

Lorises have little round ears, large round eyes, and a button nose. Because they look so adorable to most humans, uninformed citizens purchase lorises as "pets." However, they make very poor pets: lorises are nocturnal, so they sleep when humans are awake. Also problematic, they do not consume human foods but eat only insects. Nonetheless, they continue to be popular as pets. In May of 2007, forty Thai lorises were kidnapped from the wild and exported to Japan, where they were discovered and confiscated; unfortunately, twelve of these little refugees died before they could be rescued.

How many of us have heard of Bioko or know where it is? Bioko is a small, isolated, volcanic island in the Gulf of Guinea. It is now part of Equatorial Guinea—Africa's only Spanish-speaking country. Bioko's nonhuman primates are unique throughout the world—found nowhere else. They include the Bioko drill, Bioko black colobus, Pennant's red colobus, the red-eared guenon, Bioko crowned guenon, Stampfli's putty-nosed guenon, Preuss's guenon, Bioko pallid needle-clawed galago, Allen's squirrel galago, Prince Demidoff's galago, and Thomas's galago (Weinberg 2007, 12). Although most people have never heard of these magnificent species, they require our attention if we are to avert their extinction.

So many endangered primates—so little media attention. In spite of the media's disinterest, the International Primatological Society (IPS) regularly reports on the most threatened primates and lists them according to country:

- Madagascar: greater bamboo lemur, silky sifaka lemur;
- Africa: roloway monkey, Tana River red colobus, Cross River gorilla;
- Asia: Cat Ba langur, western hoolock gibbon, Sumatran orangutan;
- South America: Peruvian yellow-tailed woolly monkey, brown-headed spider monkey (McGreal 2008, 8).

Considering the extreme danger these primates face and the finality of extinction, it is disconcerting that so few people have heard anything about these species or learned how our activities threaten their existence.

Collectively we are not only ignorant of other primates, but we are also chillingly indifferent: Seventy-five thousand primates are currently exploited for U.S. testing and research (Thirlway 2009b, 14–15). Citizens know that white-clad lab workers experiment on other primates but do not insist on a change of policy. Scientists treat these primates like petri dishes—recording their emotional distress and physiological terror as if these reactions were weather fluctuations on a barometer. The international trade in primates flourishes largely because we continue to exploit these individuals for science. In July of 2007, 950 crab-eating macaques—captured from the wilds of Malaysia—were reclaimed from smugglers. By the time they were seized, more than 100 had suffocated, and other starving captives had consumed the dead. It is likely that these macaques were headed for China, ultimately on their way to research laboratories in Western countries (“Hundreds” 2007, 12).

Scientific exploitation and consumer indifference are evident in the shocking 28,091 primates brought into the United States in 2008; more than 99 percent of them “were for use in scientific research or pharmaceutical testing.” The primary importers were Covance Research Products, Inc. (11,360) and Charles River Laboratories, Brf. (7,712) (Thirlway 2009b, 14–15). Many were imported to become the victims of gruesome biowarfare experiments. These victims of “science” “will live lives of pain and suffering and die young” (“Chinese Monkey” 2008, 11). The crab-eating macaque is the most common primate in science labs; the United States imported 26,512 of these individuals in 2008 with China, which supplied 18,087, as the main provider. Other large sources included

Mauritius (4,502), Cambodia (1,920), and Vietnam (1,800) (Thirlway 2009b, 14–15).

What is particularly alarming about these figures is that crab-eating macaques are not native to China. China imports macaques from nearby countries, perhaps Vietnam and Cambodia, or even Indonesia, using falsified documents claiming that these primates are “captive bred.” Such trafficking causes “catastrophic declines in the populations of wild monkeys in their native lands” (“Chinese Report” 2009, 12–13). If we are going to protect endangered species, we must ban the use of primates in laboratories.

Zoos are also part of the problem of diminishing wild-primate populations. In 2008 zoos bought less than 1 percent of the imported primates. But in May of 2006, six United States zoos imported thirty-three feral primates, paying more than twelve thousand dollars for a single individual. These zoos (San Diego, Wildlife World in Arizona, Denver, Lowry Park in Florida, and Houston and San Antonio in Texas) admitted that these monkeys were caught in the wild but justified their actions by saying that these individuals were victims of the bushmeat trade with nowhere else to go. Whatever excuses these zoos offered, buying primates supports consumer-based trade, which encourages poachers and dealers to kidnap primates from their wild homes and smuggle them abroad (“U.S. Zoos” 2006, 20–21). Zoos must not buy primates.

U.S. laws encourage smugglers to deal in primates. Not only are imports permitted for research and zoos, but primates can be legally sold as pets within the country. Consequently, primates are bred in the U.S. and can be bought and sold. Once a gibbon or loris has been successfully smuggled into the country, this endangered species can also be sold as a pet without fear of reprisal. According to Born Free USA, only twenty-one states have thus far banned pet trade in primates while twelve others merely regulate possession; seventeen states have no laws whatsoever concerning primates (“Pet Chimp” 2009, 21). If we want to protect these endangered species abroad, the United States must ban both domestic primate breeding and trade. When there is no internal trade in primates, no gibbons, lorises, macaques, or chimpanzees will be captured from their lush homes to be smuggled across U.S. borders.

If we are to pull nonhuman primate species back from the brink of extinction, we must become informed. This is not easy when our government lacks transparency. It is unclear how many primates are currently being exploited by

U.S. scientists; estimates stand at around seventy to seventy-five thousand individuals annually ("Future" 2008, 14). It is also easy for citizens to be fooled into complacency when meager improvements are promised. For example, the U.S. government recently committed to the lifetime care of "surplus" chimpanzees who have been exploited for federally funded research in the 2000 Chimpanzee Health Improvement, Maintenance, and Protection Act. This sounds promising until we learn that chimps comprise only 2 percent of the primates exploited for research in the U.S. ("Chimpanzee Research"). In 2008 the U.S. House of Representatives introduced legislation to "prohibit laboratory testing on all apes." But again, very few apes are forced into research (Crair 2008, 7). What of the 26,512 crab-eating macaques imported for science in just one year?

In contrast to U.S. trends, scientific exploitation of primates peaked in the United Kingdom in 2006 at 7,392; the U.K. used just 1,244 primates in 2008, largely for pharmaceutical safety tests. While even one individual is too many, this number is not nearly as ugly as United States figures.

Similarly the parliament of the European Union adopted a declaration in 2007, drafted by Animal Defenders International, calling for an end to the use of apes and wild-caught monkeys in laboratories ("European Parliament" 2007, 22). This document was signed by 433 members of the European Parliament (MEPs) and includes "a timetable for the phasing out of the use of all primates" (Thirlway 2009a, 24). Today roughly one thousand (10 percent) of the primates exploited in labs in the European Union are caught in the wild ("Promising Proposal" 2009, 9). Unfortunately, European Union laws do not protect primates who have been bred in captivity from exploitation in labs.

While the European Union is well ahead of the United States, the exploitative nature of humanity remains both a concern and a disappointment. What led us to believe that it is morally acceptable to exploit individuals from other species for scientific experimentation? We must revisit our assumptions. Is it morally acceptable to exploit other humans in harmful ways in the hope of learning something that may be useful? While it may be true that many humans would not hesitate to experiment on nonhumans in the hope of saving a loved one, it is equally true that many would just as eagerly experiment on humans to sustain this same hope. Desperation does not shape ethics; desperation is just one of many good reasons why we must establish and hold firm ethical principles.

The fact that we are too often willing to exploit and abuse others to benefit ourselves is not a legitimate moral argument for animal experimentation. On the contrary, because we tend to be selfish, morality—and resultant laws—ought to protect the vulnerable against those who are more powerful and might choose to exploit individuals for their own ends. Might does not make right; self-interest—even in desperation—does not justify exploiting others, whether they come from a different race (Jews in Germany, Native Americans in the United States, Tibetans in China) or a different species.

Other primates seem to understand this moral truth. A study published in 1964 in *The American Journal of Psychiatry*, conducted on macaques at Northwestern University Medical School, was designed to assess altruistic behavior. Scientists created an experiment where macaques could eat only “if they were willing to pull a chain and electrically shock an unrelated macaque whose agony was in plain view through a one-way mirror” (Sagan and Druyan 1992, 117). Using a three-second “5 ma high-frequency shock,” the macaques quickly learned that the chain providing food also harmed another individual. One macaque, after witnessing the effects of the shock on another, refrained from “manipulating either chain for 5 days and another for 12 days” (Masserman, Wechkin, and Terris 1964, 584; italics in original). Many other macaques refused to pull the chain; in effect they refused to eat: “in one experiment only 13% would do so, 87% preferred to go hungry. One macaque went without food for nearly two weeks rather than hurt its fellow” (Sagan and Druyan 1992, 117).

In this experiment, scientists “demonstrated that most rhesus monkeys refrained from operating a device for securing food if this caused another monkey to suffer an electric shock” (Masserman, Wechkin, and Terris 1964, 584). The scientists concluded, “A majority of rhesus monkeys will consistently suffer hunger rather than secure food at the expense of electroshock to a conspecific” (585). It is ironic that humans shamelessly traumatized these nonhumans to see if they have a sense of altruism and morality; in the final analysis, it is *our* morality—our capacity for compassion and empathy—that is noticeably lacking.

In a study conducted with human subjects, designed by Stanley Milgram at Yale in 1963 and published in the *Journal of Abnormal and Social Psychology*, an authority figure (a man in a white coat) instructed participants to act in ways that were both cruel and potentially dangerous to another human being. The goal was to discover “how much pain an ordinary citizen would inflict on

another person" simply because someone in a white coat ordered him or her to do so ("Milgram Experiment").

The subjects were told that the experiment explored learning ability. They were instructed to purposefully and directly shock another individual—the "learner"—whenever he or she made an error. Participants could not see the learner, but they heard the response to the shocks that they *thought* they administered. (Unlike the macaques, the humans here were not actually shocked. Their dramatic responses were prerecorded by an actor specifically for this experiment.) "After a number of voltage level increases, the actor banged on the wall that separated him from the subject." After banging several times "and complaining about his heart condition," the prerecorded learner ceased making any responses ("Milgram Experiment").

In spite of these chilling recordings, most subjects continued to "shock" the learner—with encouragement from the man in the white coat—even after the learner fell silent. In fact, 65 percent of the subjects administered the maximum shock—a potentially deadly 450 volts. While at some point every subject questioned what he or she was doing, only one "steadfastly refused to administer shocks *before* the 300-volt level." Perhaps most importantly, not even one subject "insisted that the experiment itself be terminated" ("Milgram Experiment").

Another experiment using human subjects—this time at Stanford under Philip Zimbardo in 1971—provided twenty-four white middle-class males with roles in an artificial prison community. The intent was to explore the effects of institutional roles on individuals over a two-week period. In the basement of one of Stanford's buildings, Zimbardo created an artificial prison, where volunteers randomly became either prisoners or guards—and they took to their roles famously. Guards were soon engaged in sadistic behavior, humiliating, harassing, and abusing inmates, who were often required to live in filth. They readily administered physical punishment, even forcing prisoners "to go nude as a method of degradation, and some were subjected to sexual humiliation, including simulated homosexual sex" ("Stanford Prison").

Zimbardo himself, assuming the role of prison superintendent, was unmoved in the face of increasing cruelty and sadism. Roughly fifty people visited the prison while it was in session, but not one suggested—let alone insisted—that the experiment be terminated. Then Zimbardo's girlfriend, Christina

Maslach, came to visit, and she "objected to the appalling conditions," causing Zimbardo to conclude the experiment after just six days.

While both of these experiments were designed to study the effects of outside forces on the human moral compass (an authority in a white coat or a role in one's institution), comparing the Yale and Stanford studies with the macaque experiment is humbling. In contrast with human primates, the macaque primates showed "a saintly willingness to make sacrifices in order to save others" (Sagan and Druyan 1992, 117). In the words of Sagan and Druyan,

macaques—who have never gone to Sunday school, never heard of the Ten Commandments, never squirmed through a single junior high school civics lesson—seem exemplary in their moral grounding and their courageous resistance to evil. Among the macaques, at least in this case, heroism is the norm. If the circumstances were reversed, and captive humans were offered the same deal by macaque scientists, would we do as well? In human history there are precious few whose memory we revere because they knowingly sacrificed themselves for others. For each of them, there are multitudes who did nothing. (117–18)

With such unnerving evidence from our labs, one wonders how humans can possibly believe that those placed in positions of power and authority can be trusted to know when animal experiments ought to be terminated for moral reasons. Such morally questionable experiments help us to ponder what it means to be one primate among many. Increasingly we come to understand that any comparison between human and nonhuman primates does not show humans in a complimentary light. And any difference between the two is merely one of degree with regard to reason, altruism, or language, for example. Differences are of degree, not kind, and humans are not the pinnacle of evolution that we have too often imagined ourselves to be.

For this reason, philosopher Tom Regan extends rights to nonhuman primates (and many other species). He defines "persons" as individuals who have an experiential welfare—they fare better or worse depending on their circumstances. He notes that we are persons because "each of us is equally a somebody, not a something" (Regan 2003, 81). What happens to persons matters—"whether to our bodies, or our freedom, or our lives themselves—[it]

matters to us because it makes a difference to the quality and duration of our lives, as experienced" (Regan 2005, 50). Persons—somebodies—are affected by circumstances. Just as our welfare matters to us, the welfare of a stray poodle, factory-farmed hog, or starving primate matters to each of them. For example, macaques are negatively affected by the experiences of an electric shock and starvation. Pygmy lemurs and proboscis monkeys also have experiences; their lives fare better or worse based on what happens to them—whether they are enslaved as pets or robbed of their homes by diminishing habitat. Each of these primates is a person—a somebody, not a something.

Because circumstances and experiences affect the welfare of persons, what we do to them has moral significance. If I enslave you or a gibbon for entertainment, I have behaved selfishly and cruelly because I have diminished your/his or her life to enhance my own. If I kidnap and sell you or a chimpanzee, I have behaved selfishly and cruelly because I have disrupted your/his or her community, family, and life for my economic benefit. If I use your body or a macaque's body in the hope of saving myself (or those like me), I have behaved selfishly and cruelly by sacrificing your/his or her happiness, autonomy, and perhaps life to enhance my happiness or lifespan or those of my species or race. It is selfish to exploit others for our gain, whether they are other mammals, other primates, or other human beings. No moral code of conduct encourages selfishness, cruelty, or exploitation.

For these reasons, persons—those affected by their circumstances—have inherent value according to Regan, and those with inherent value have rights "whether or not anybody else cares" (Regan 2003, 82). He defends the rights of nonhumans for the same reason that he defends human rights: you and I, Hereford cattle and white leghorn chickens, and vervet monkeys exploited by the U.S. Department of Defense are all persons ("War" 2009, 6), individuals affected by our circumstances and experiences. We are somebodies—not somethings—individuals who experience our lives as painful or peaceful, chaotic or quiet.

The line that much of the Western world has struggled to maintain between human beings and other animals has always been an artificial construct. We have created and maintained this line to hold ourselves apart and above other animals and to justify exploiting them for our ends: food, clothing, or experimentation. If we are going to save endangered primates, we must first recognize that they are

individuals much like human beings, who prefer to be free to live their lives independent of exploitation.

Primate People is about nonhuman primates; this book is also about human beings. Other primates are people, and people are primates. Each is a unique individual; each is legitimately the subject of moral concern.

If we are to honor their rights as individuals and save nonhuman primates from extinction, we must first be aware that they exist, that they are in danger, and that their survival depends on our individual choices. We must understand how our actions threaten primates—and we must *alter our behavior*.

Primates are many and wondrous, yet few and endangered. Everywhere they live, they have been crowded out of diminishing forests, hunted for food or medicine, captured for the lucrative pet/tourist trade, and either kidnapped or bred for science. As a result, every primate species on the planet—aside from human beings—is either endangered or threatened.

Our efforts to protect primates will be much more effective if we dismantle the artificial line that we have created between ourselves and other animals, if we recognize that the lives of nonhumans matter not just to us—not just in light of our selfish interest in diversity—but to them. We are therefore morally required to stop systematically exploiting others, whether they are chimpanzees or pygmy lemurs, chickens or chinchillas. Because nonhuman animals are also persons who fare better or worse depending on the way we treat them, we must begin to give them the respect and dignity that persons deserve.

Authors and Essays

Many authors represented in *Primate People* are activists who are unaccustomed to writing essays for anthologies. They graciously squeezed in a little writing time between tending woolly monkeys or just before departing for a primate foray into the Indonesian jungle. Other authors know English only as a second (or third) language. Consequently, they frequently submitted a rough draft and left polishing to me while they flew across continents to plead on behalf of macaques or rushed to cradle bushmeat orphans. With the help of e-mail and by working together, we turned their understanding, experience, and knowledge into the chapters of this anthology.

Those who submitted these essays work for a variety of primates around the world in an assortment of ways. They are undercover agents, scholars, and researchers; they work in sanctuaries or with grassroots organizations to fight vivisection or lobby for laws that protect primate habitat. Authors in this volume live and/or work in Malaysia, Spain, Thailand, England, Wales, South Africa, Colombia, Denmark, the United States, and Indonesia. They work with baboons, woolly monkeys, capuchins, gibbons, gorillas, macaques, owl monkeys, lemurs, lorises, De Brazza's monkeys, chimpanzees, and spider monkeys.

These authors bring primates to life as individuals and communities, for instance, the baboon who was caught in a snare yet approached a human friend, "holding his arm out" in hopes of help, and a troop of chimpanzees at a sanctuary who exemplify the hopes and hurts of their species in their interactions with their caregiver. Their stories introduce readers to the antics and pleasures, tendencies and idiosyncrasies, sufferings and fears of nonhuman primates, and they explain how humans endanger and harm these close cousins of ours. This last element—how humans endanger and harm primates—is of utmost importance because these stories carry home to readers the effects of our choices. The authors in this volume help us to understand what we can and must do to protect these vulnerable individuals. The essays in this anthology are divided into three sections.

Part I: Foundations

The first section introduces some of the key problems threatening and devastating nonhuman primates, such as the entertainment and pet industries, logging and the bushmeat trade, and habitat destruction caused by our dietary choices. These essays introduce individuals from a range of primate species around the world and explore issues that reemerge in later sections. They highlight fundamental problems facing primates, problems that stem from human ignorance, greed, and indifference. These authors share what they have learned from working with and for primates. We begin with a short essay that introduces primate basics, written by field primatologist Linda Wolfe. She charts the evolutionary history of primates and their social systems, allowing us to reflect on where we fit into the primate family—humans are "territorial pairs" among primate species. She also prepares us for the next essay by introducing CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Danish biologist Birgith Sloth focuses on the illegal trade in primates. Sloth is an expert on CITES, a fairly recent international wildlife treaty that attempts to restrict trade in endangered plants and animals. CITES lists all nonhuman primates either under Appendix I or II ("CITES" 2008, 8), and she explains why: thirty-seven primates are now critically endangered, seventy-eight species are at high risk of extinction in the wild, and we lack sufficient information on fifty-six other species to be able to assess their level of danger. Nonetheless, it is legal to trade primates in the international market in the name of science, so they are smuggled across borders for the pet trade, further threatening dangerously depleted species. Sloth describes the contents of this important document, its implementation, the challenge of enforcement, and how CITES relates specifically to the protection and preservation of nonhuman primates.

Phaik Kee Lim lives in Malaysia, a nation where primates are indigenous and some citizens view these relatives of ours as a nuisance. She explains how and why local officials shoot macaques and describes the unfortunate and entirely unnecessary demise of a dusky leaf monkey, who clutched her infant desperately even in death. She also provides examples of the mistreatment of nonhumans in Malaysian circuses, resorts, and zoos and highlights the ongoing illegal trafficking of endangered wildlife, including orangutans and gorillas, across international borders despite the establishment of CITES. Lim works with a Malaysian conservation organization to "correct problems affecting humans, nonhumans, and the environment." With a pen that demands change, she writes letters and editorials to warn people away from investing in exotic pets and paying entrance fees to any form of entertainment that supports animal exploitation. With her words, she hopes to stir those in power to act on behalf of orangutans forced to perform frivolous tricks, gorillas kidnapped from their homelands, and macaques devalued as pests. Reflecting on twenty-five years of activism, Lim laments, "Nonhumans are always at the mercy of humans."

Noga and Sam Shanee bring primate issues closer to home for readers in Europe and North America by linking our choice of foods to tropical deforestation in Brazil, thereby implicating our diet in the plight of one of the most endangered primates on the planet: yellow-tailed woolly monkeys. While working on a short research project in Peru, the Shanees learned that yellow-tailed woolly monkeys have been pushed to the precipice of extinction. Charmed by the bold curiosity of these highly endangered primates, they established a conservation

organization in La Esperanza, Peru, where they work with locals—especially churches—to turn the tide for these cheeky inhabitants of the Brazilian rain forest.

After the Shancees set up shop in South America, they quickly discovered that big government and big industry have united in their efforts to reap the last dollar from Peru, even at the cost of shoving these obstreperous primates into the abyss of extinction. The Shancees demonstrate the importance of gaining a local perspective and the need for on-site action. Their essay helps readers think about the way our daily choices affect primates on distant continents and recognize that individual initiative and direct action are essential if we are to save dwindling tropical forests and their endangered residents.

Few people, if any, have been as effective in helping raise awareness and bring change for primates as Shirley McGreal. Thirty-five years ago, McGreal met non-human primates for the first time, and no one could have guessed how a few tiny stump-tailed macaques, peeking piteously out of a cage at the Bangkok International Airport, would change her life—and the lives of primates around the world. Their frightened eyes stirred curiosity and compassion in McGreal and refocused her youthful energy. With the help of a like-minded friend, McGreal soon discovered a ring of smugglers who were stealing baby gibbons from Thailand's jungles to send them to Singapore, where they were redirected across the ocean to California laboratories. She and her friend exposed and effectively destroyed the Singapore Connection, an illegal transport route that landed Thailand's primates in U.S. labs. Ultimately, the urgency of those caged eyes led McGreal to establish the International Primate Protection League (IPPL), and she has continued to work courageously and effectively on behalf of primates ever since.

Part II: Research

The next set of essays exposes the exploitation of nonhuman primates in research facilities. This section begins with two essays written by animal activists, including an undercover agent who spent time in a primate lab. The third essay exposes a notorious Colombian scientist—Manuel Elkin Patarroyo—and offers an alternative research model. The last two essays in this section continue this general theme, moving from conventional scientific exploitation of primates to more

compassionate and moral—not to mention sustainable and effective—scientific models and methods.

As an animal liberationist and dedicated activist, Michael Budkie has meticulously reviewed “tens of thousands” of “inspection reports, research protocols, and health-care records for dogs, cats, goats, and primates” in U.S. research labs—cryptic records describing the physical actions and reactions of individuals sold into science for medical purposes. Budkie provides samples from these disconcerting documents: “primate #312A: ‘still overdosing on current drug dosage, ataxic, hypersalivating, disoriented.’” His revulsion at what he has learned about animal research is palpable. Having examined and lobbied against animal experimentation for twenty years, Budkie writes, “I can never forget that each one of the thousands of pieces of paper that I have read—documents detailing the horror of animal experimentation—actually describes the life of an individual.”

As an undercover investigator on a two-year assignment for In Defense of Animals, Matt Rossell worked as a lab technician at Oregon Health and Science University’s Oregon Regional Primate Research Center (now the Oregon National Primate Research Center), a facility holding twenty-five hundred primates. Ostensibly he was hired to provide enrichment for caged macaques with the stated goal of easing abnormal behavior—actions that are both common and normal for lab primates. Rossell notes that, in truth, he was hired merely to “create a paper trail to meet the hollow requirements of the Animal Welfare Act.” He remembers one victim in particular: macaque number 16162, who suffered day by day—depressed, lonely, stressed, and bored—until she fell ill. His essay offers a chilling view inside a primate research facility and reminds us of the innumerable individuals who suffer and die in these stainless-steel facilities.

Juan Pablo Perea-Rodriguez of Colombia explores the motivation and practices of a specific scientist who continues to exploit primates: Manuel Elkin Patarroyo. Like most researchers, Patarroyo hoped to bring great knowledge and innovation to humanity—while gaining wealth and notoriety. Indeed, he found fame and riches, but he provided nothing of value in exchange. Instead, Patarroyo has damaged—and continues to harm—the fragile South American ecosystem and many individual primates. Perea-Rodriguez also describes his student internship at DuMond Conservancy for Primates and Tropical Forests, a facility in Miami, Florida, that uses noninvasive research to educate the public about primates and their habitat. At Dumond his life was unexpectedly transformed when

he learned and practiced a scientific approach where humans respect other primates and consider science only a byproduct of their primary role as caretakers and protectors of individuals and habitats.

Anthropologist and primatologist Linda Wolfe transports us to the fresh air and freedom of field research. Watching primates in the field has taught Wolfe not only about macaques but also about humanity—including herself—and animals more generally. Reflecting on her fieldwork, Wolfe ponders human exploitation of nonhumans: “How much torment may we inflict, and for how long, on one helpless individual in a laboratory?” Her writing courageously travels along a razor’s edge between the old model of dispassionate, selfish science and her growing understanding of macaques—and all animals—as unique individuals worthy of respect and protection.

Ethologist and primate behaviorist Debra Durham carries us with her into a primate lab, then onward and outward to field research, and finally to the life of an animal liberationist. When she graduated from college, Durham was excited about working in a laboratory. Despite her enthusiasm, she quickly realized that all was not right with the little motherless macaques and baboons who clung desperately to surrogate mothers: PVC pipes covered with cloth in otherwise barren cages. Nonetheless, she fed, watered, measured, weighed, and cuddled these unhappy babies until her conscience forced her out of the lab and back to college. As a graduate student, she traveled to Madagascar to study lemurs in the field—free individuals in their own habitat. The more Durham learned, the more she understood the injustice of primate research labs. Determined to bring change, she took a job with PETA (People for the Ethical Treatment of Animals) and was placed on a case involving government research with a group of rhesus macaques, which she followed for nearly two years. In the process, she came to know Patrick and Brigit, two monkeys exploited and destroyed in the name of science:

Both were forced subjects of invasive brain experiments. Both had holes cut in their skulls that were fitted with metal guide tubes. The tubes held electrodes that were inserted into their brains during experiments to study brain activity. Patrick and Brigit also had bolts drilled into their skulls and a metal coil implanted in one eye. Four or five days each week, these individuals were strapped into a chair in full-body restraint with their heads bolted in place.

Repulsed by what she learned in her work for PETA, Durham took a job with the Physicians Committee for Responsible Medicine (PCRM), working on behalf of individuals like Patrick and Brigit.

Part III: Sanctuaries

The final section of this anthology focuses on sanctuaries where activists lobby for change, educate communities, and care for displaced nonhuman primates. The first four essays are written by or about sanctuary founders and their work. These essays explain how founders arrived at such a demanding and rewarding career, describe the primates they work with (including profiles of cherished residents), and reveal what these energetic and extraordinary people have learned along the way. These writers exemplify the enduring concern and exceptional dedication that lie behind a career in animal advocacy, in this case, founding and maintaining a sanctuary. The next five essays are written by people who have taken temporary or permanent positions at sanctuaries, whether as volunteers or skilled staff. These writers describe what employees and volunteers do at sanctuaries in places such as Southeast Asia and South America and what readers can expect if they choose to do similar work.

Barbara Cox begins a series of essays that focus on individual primate sanctuaries established as permanent residences and their founders. She writes about a Florida sanctuary for Central and South American primates and walks us through the misguided moments that carry primates from freedom and health into the unwitting arms of untrained humans in ill-suited homes. Unbeknownst to Kari Bagnall, Jungle Friends Primate Sanctuary began when her boyfriend bought a baby capuchin, whom she named Samantha. He quickly grew tired of the little troublemaker, only to find that his girlfriend—when forced to choose between him and the difficult, diminutive capuchin—sent him packing. Samantha proceeded to destroy Bagnall's house and even sank her sharp teeth into Bagnall's visitors.

Still not grasping the core problem, Bagnall purchased Charlotte, a "sister" for Samantha, and the two youthful capuchins quickly demolished everything from water fountains and pools to private bedrooms. Eventually Bagnall got the picture: capuchins are neither pets nor human children. She also discovered that she was not the first person to be duped by the pet-trade industry: there

are many more pet capuchins than sanctuary openings. Having unwittingly contributed to the problem, Bagnall made a remarkable commitment: she accepted long-term responsibility and created Jungle Friends Primate Sanctuary.

From the loss of her own newborn son to the moment she first sang with a gibbon, Deborah Misotti healed alongside damaged and exploited primates. Misotti's sanctuary dreams were born at a facility that exploited primates for entertainment, and she explains the way a proper sanctuary differs from such a capitalistic enterprise. She defines a sanctuary as "a place of refuge or asylum," where residents are not owned, harassed, or exploited. Misotti created, and now manages, a Florida sanctuary that provides lifelong care for primate victims of the trade in exotic pets, research laboratories, and/or breeding facilities. She ponders the arrival of Chi Chi, a stunning black gibbon who was uprooted and transported from one capitalist venture to another: exploited for her reproductive ability, repeatedly impregnated, perpetually pregnant, yet never allowed to be a mother. Misotti is painfully aware that this primate has been denied the simple and seemingly inalienable right to have the life of "a gibbon without the constraints of human greed, ownership, and intrusion."

The next author, Rita Miljo, founded CARE (Centre for Animal Rehabilitation and Education) in South Africa. In spite of her ongoing efforts to increase local awareness, baboons are considered vermin in South Africa and can be exterminated with guns, traps, or poison ("IPPL Members" 2006, 5). She describes a nearby colony of wild baboons and the devastating effect of snares on these vulnerable and much maligned individuals. Miljo tells readers about two baboons who came to her from research labs, another who spent most of her life "welded into a forty-five-gallon drum," and a little orphaned baboon who, though released into the wild, never forgot the comforts of CARE—or her human caretaker. She takes us with her through some of the inevitable, but agonizing, life-and-death decisions that she must make on behalf of individuals who have come under her care.

We close our exploration of sanctuary founders with a visit to Indonesia under the guidance of Spanish sanctuary veterinarian Karmele Llano Sanchez. Sanchez worked with primates in Venezuela and Holland before cofounding a primate center in Indonesia, where she specializes in rehabilitation and release of macaques and lorises into the wild. She describes the capitalistic enterprises endangering these two primate species: local and international markets for exotic

pets, research, and delicacy dishes and the local development of palm plantations that claim vital habitat, where owners and operators kill local primates. Sanchez also explains what happens to lorises in the Indonesian pet industry and describes her veterinary efforts on behalf of these unfortunate victims of capitalism and consumer ignorance. She details the costs inherent in running a sanctuary and describes some of the individual residents she has dealt with as a sanctuary veterinarian, including an orangutan with a fractured skull and a newborn gibbon with a raging fever. Sanchez expresses strong compassion for her patients and palpable frustration with the human insensitivity and greed that underlie the painful problems she works to cure.

Most readers are not in a position to found a sanctuary, but many can do what Fiona Mikowski has done. As a college student, she volunteered at the Gibbon Rehabilitation Project (GRP) in Thailand. She describes what she experienced as a volunteer and visitor in Thailand: "Though living in extreme humidity in the midst of an unforgiving rainy season thick with mosquitoes, cockroaches, frogs, and snakes, I loved my time at the GRP," she says. Mikowski vividly portrays the daily chores of rehabilitation and the thrill of watching sanctuary residents move from life in a cage back to their rightful home in the jungles of Thailand. She also introduces us to three permanent residents at GRP—victims of the profit-driven trade in primates as pets: Tam, Bo, and Joy. In the process, Mikowski exposes the illegal transport of gibbons from their lush jungle homes to dingy basement cages, where these athletic little apes often languish for years.

Young people like Fiona Mikowski sometimes build on their initial experience in sanctuaries to become primate experts in their own right. There is tremendous need for individuals who specialize in nonhuman-primate care and rehabilitation like veterinarian Karmele Llano Sanchez, ethologist Debra Durham, and student intern Juan Pablo Perea-Rodriguez. The next three essays are written by these trained and experienced individuals, who provide much-needed temporary help at three very different sanctuaries, one in the United States, one in Peru, and one in Ireland.

Paula Muellner was giddy with excitement when she drove across the U.S. to take up her new post at a chimpanzee sanctuary in Oregon, but when she arrived, the chimpanzees spit water at her and flung "meticulously prepared" smoothies back in her face. Luckily Muellner understood that these chimpanzees had been exploited, abused, neglected, and abandoned repeatedly by humans; it

would take time to earn their trust. After months of food throwing, the chimpanzees slowly began to invite her to play and groom. Herbie eventually took a shine to Muellner... little did he know that she was only a temporary caretaker. Muellner reflects on the depth of emotions expressed by Herbie and the other sanctuary residents and the moral concerns and complications of taking a two-year position working with individuals who form deep and lasting bonds—and have no way of knowing that you are only part of their community for a short time. On leaving, she realizes, “I had broken the circle of trust that I had worked so hard to build.”

Experienced primate caretaker Keri Cairns flew from the United Kingdom to Ikamaperu, a monkey sanctuary in Peru, to tend residents and build an enclosure while founders and primary caretakers Carlos and Helene Palomino were away for six weeks. With an eye to colonies of termites and intense earthquakes, Cairns designed and built a sturdy primate enclosure on the edge of the Peruvian rain forest, but he also got to know the local residents. He befriended a large adult male woolly monkey, Apu, who had all the teeth and strength needed to kill a human being. Yet Cairns slowly gained Apu's trust, and in turn, learned to trust Apu, even sharing playful moments with this powerful individual from another species.

Cairns explains the importance of sanctuaries and reminds readers that our choices affect primates. He writes that woolly monkey habitat is “cleared for agricultural purposes such as grazing beef cattle or growing soya to feed these cattle for market. I became a vegetarian twenty-five years ago after reading about the effect that this production of cheap beef, mainly for Western fast-food outlets, was having on the Amazon rain forest.” A zoologist skilled in the care of primates, Cairns reminds readers that, whether they are teachers, engineers, architects, writers—or just plain handy with a few tools—their skills are greatly needed for animal advocacy.

Helen Thirlway, now head of IPPL in England, writes about a particular monkey, Singe, whom she met while working at a sanctuary in Ireland. Singe was a pudgy, disillusioned De Brazza monkey who had spent twenty long years lounging on overstuffed furniture and eating junk food, enslaved as a pet. As with most exotic pets, Singe's humans ultimately sought to be rid of this living acquisition, in this case turning her over to a primate sanctuary. De Brazzas normally live in central Africa—there are no De Brazza sanctuaries in Europe—so

Singe lived "alone, with no companions of her own kind." Thirlway was given the task of taking care of this dejected resident, trying to bring a bit of joy into Singe's limited and lonely life. To do so, she had to gain Singe's trust. Her essay describes both the challenges that face sanctuary caretakers and the problems that result when humans purchase nonhumans as exotic pets.

Licensed professional civil engineer and Indian American writer and activist Sangamithra Iyer writes, "I was interested in catastrophes—and in preventing them." Iyer communicated in sign language with Washoe and watched research chimps neurotically twist about in their "enriched" cages, she tended chimpanzees orphaned by the bushmeat trade in Cameroon, and she met highly endangered mountain gorillas in Rwanda. While in Rwanda, Iyer also visited a memorial church that houses skulls and other bones of genocide victims, and she talked with Rwandans who visibly wear the scars of unmitigated human violence. As one who has worked cleaning up hazardous wastes, she understands that it takes billions of years to reclaim poisoned soils. Reflecting on her time with orphaned chimpanzees and battle-scarred humans, Iyer ponders the nature of the human primate—our tendency toward violence, our ability to move forward after losses that seem impossible to bear, and the legacy of violence:

I am not a primatologist, nor a psychologist, but I have seen a chimpanzee spin her head in figure eights, and I have felt little orphaned fingers clinging to my shirt. I have seen skulls lined up on a shelf in a wooden church in Ntarama, and I have witnessed the way we deal with hazardous wastes in the United States. I know our human hands are soiled, and I wonder how we can clean up our messes.

In this highly reflective piece, likely speaking for most of the authors in this book—and certainly speaking for the editor—Iyer writes, "I wanted to know that new lives were possible."